

REMARKS/ARGUMENTS

Claims 1, 3, 5-12 and 14-31 are pending in this application. By this Amendment, claims 8, 14, 16, 18 and 23 are amended and claims 25-31 are newly added. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Applicants gratefully acknowledge the Office Action's indication that claims 8-12, 14-15 and 23-24 define patentable subject matter. However, for at least the reasons set forth below, Applicants respectfully submit that all pending claims are in condition for allowance.

Entry of the amended claims is proper under 37 C.F.R. §1.116 since the amendments: (1) place the application in condition for allowance (for the reasons discussed herein); (2) do not raise any new issues requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution without incorporating additional subject matter); and/or (3) place the application in better form for appeal (if necessary). Entry is thus requested.

A. The Office Action rejects claim 1 under 35 U.S.C. §112, second paragraph. Applicants respectfully submit that in one embodiment, a liquid phase transition block can include coolant storing block 202, evaporation block 204, gaseous coolant moving block 206, and condensation block 208. Thus, Applicants respectfully submit that a liquid phase transition block is shown in the original drawings as filed. Withdrawal of the rejection of claim 1 under §112 is respectfully requested.

B. The Office Action rejects claims 1, 3, 5-7 and 16-22 under 35 U.S.C. §103(a) over U.S. Patent No. 6,328,097 to Bookhardt et al. (hereafter "Bookhardt") and "Heat

Pipe", and article by David Reay (hereafter "Reay") and Section 2.9 of "Electronic Packaging and Interconnection Handbook" by Charles Harper (hereafter "Harper"). Since the references individually or in combination do not teach or suggest features recited in the pending claims, the rejection is respectfully traversed.

With respect to claim 1, Applicants respectfully submit that Bookhardt, Reay and Harper fail to teach or suggest at least features of a cooling unit, wherein the cooling unit is a micro cooling unit configured to perform heat exchange, wherein the micro cooling unit includes a liquid coolant moving block configured to return coolant from a beginning of a liquid phase transition block from an end of the liquid phase transition block, and an insulation block between the liquid phase transition block and liquid coolant moving block and combinations thereof as recited. In contrast, Applicants respectfully submit that a "wick" in lines 2-3 of the Principles of Operation, Cooling with Heat Pipes; page 2.79 of Harper does not teach or suggest at least features of an insulation block and combinations thereof as recited in claim 1. Further, Applicants respectfully submit that Bookhardt, Reay and Harper do not teach or suggest any modification to its disclosure that would result in at least features of the micro cooling unit and combinations thereof as recited.

With respect to claim 16, Applicants respectfully submit that Bookhardt, Reay and Harper, individually or in combination, would not result in at least features of a cooling system for a portable computer including a plate-heated pipe covering one side of the frame to form a top surface of the fan housing unit and combinations thereof as recited in claim 16. In contrast, Applicants respectfully submit that Bookhardt discloses thermally conductive member 130 extends between attachment block 120 and heat exchanger 135.

Further, Applicants respectfully submit that Bookhardt does not disclose thermally conductive member 130 being exposed in housing 110. See lines 35-38 of column 3 of Bookhardt. Further, Applicants respectfully submit that Bookhardt, Reay and Harper, individually or in combination, do not teach or suggest any modification to their disclosure that would result in at least features of a cooling system for a portable computer and combinations thereof as recited in claim 16.

With respect to claim 21, Applicants respectfully submit that Bookhardt discloses a single thermally conductive heat member 135. Thus, Applicants respectfully submit that Bookhardt, Reay and Harper, individually or in combination, do not teach or suggest nor would result in at least features of a cooling system including a micro cooling system and a plate heat pipe and combinations thereof as recited in claim 21.

For at least the reasons set forth above, Applicants respectfully submit claims 1, 16 and 21 define patentable subject matter. Claims 3, 5-7, 17-20 and 22 depend from claims 1, 16 and 21, respectively, and therefore also define patentable subject matter for at least that reason as well as their additionally recited features. Withdrawal of the reject of claims 1, 3, 5-7 and 16-22 under §103 is respectfully requested.

C. Claims 25-31 are newly added by this Amendment and believed to be in condition for allowance.

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Reply to Office Action of April 13, 2006

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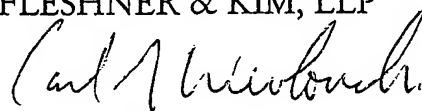
### CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, Carl R. Wesolowski at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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